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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of

Redevelopment of Spectrum To  
Encourage Innovation in the  
Use of New Telecommunications  
Technologies

)  
)  
) ET Docket No. 92-9  
)  
) RM-7981  
) RM-8004

REPLY COMMENTS OF  
McCAW CELLULAR COMMUNICATIONS, INC.

McCaw Cellular Communications, Inc. ("McCaw"), by its attorneys, hereby submits its reply comments with respect to the Further Notice of Proposed Rule Making in the above-captioned proceeding.<sup>1</sup> In response to petitions for rulemaking filed by the Utilities Telecommunications Council ("UTC") and Alcatel Network Systems, Inc. ("Alcatel"), the Further Notice "proposes to reallocate five bands above 3 GHz to private and common carrier fixed microwave use on a co-primary basis and to prescribe additional technical standards to govern use of these bands."<sup>2</sup>

To achieve this goal, the Further Notice proposes the rechannelization of the 4, 6, 10, and 11 GHz bands at issue and sets forth a number of recommended rule changes necessary to

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<sup>1</sup> FCC 92-357 (Sept. 4, 1992) ("Further Notice" or "FNPRM"). The dates for the filing of opening and reply comments were extended by Order, DA 92-1599 (Nov. 24, 1992), until December 11, 1992, and January 13, 1993, respectively. The reply comment date was further extended until January 27, 1993, by Order, DA 93-5 (Jan. 7, 1993).

<sup>2</sup> FNPRM at ¶ 1.

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permit use of the bands by existing and future microwave licensees. In response, the opening comments suggest a number of alternative channel plans, as well as a variety of perspectives on the nature of the technical rules that will best serve the public interest. In these reply comments, McCaw addresses a limited number of the issues raised in the Future Notice and the opening comments.

I. INTEREST OF MCCAW

McCaw has actively participated in the Commission's personal communications services proceedings, with which this docket is intimately related. McCaw, as a licensee of cellular and paging facilities, also is licensed to operate microwave frequencies at 2 GHz (and thus subject to possible relocation) and in some of the bands that are the subject of the instant Further Notice (and thus will be affected by the action taken in this proceeding). As the company continues to expand its cellular and paging operations, McCaw expects to license additional microwave facilities, some of which will use frequencies in the 4, 6, 10, or 11 GHz bands. Accordingly, McCaw's operations will be directly impacted in a number of respects by the action taken in this proceeding.

II. WHATEVER BAND PLAN IS ADOPTED, THE COMMISSION MUST  
ENSURE THAT LICENSEE EQUIPMENT WILL BE READILY AVAILABLE

The channelization plan proposed by the Commission provides primarily for bandwidths of 4 kHz, 8 kHz, 1.6 MHz, 3.2 MHz, 5 MHz, 10 MHz, 20 MHz, and 30 MHz in order to accommodate the varying needs of microwave users (both private and common carrier). Extensive alternative plans have been offered for the Commission's consideration by AT&T; Harris Corporation-Farion Division, Digital Microwave Corporation, and Telesciences, Inc., filing jointly ("Harris, et al."); and Telecommunications Industry Association Fixed Point to Point Communication Section ("TIA"). The plan offered by Harris, et al. and TIA is based on a basic channel of 1.25 MHz. In addition to these wholesale revised channel plans, a number of parties suggest modifications to the proposals contained in the Further Notice.

In considering whether to modify its proposed channel plan or replace it entirely with a new proposal, the Commission should ensure that the users of the 4, 6, 10, and 11 GHz bands will have access to quality equipment that is reasonably priced. Rechannelling the bands and adopting technical rules to make the subject frequencies more suitable for use by displaced 2 GHz licensees as well as other microwave operators will have little value if there is no equipment available to operate consistent with the adopted bandwidths and channel plans. Similarly, if the cost of the equipment is excessive, it will render the frequencies practically unavailable. This is particularly the

case for the many competitive telecommunications services that rely on economical microwave communications to support their operations (such as cellular service).

Accordingly, the Commission's examination and adoption of channelizations plans must take into account the realities of the equipment market and the capabilities of manufacturers. Any plan adopted in this proceeding must be consistent with ensuring that microwave licensees (existing and new) will be able to obtain reasonably priced, quality equipment.

### III. THE COMMISSION'S ACTION SHOULD ALSO PROMOTE EFFICIENT SPECTRUM USAGE

The comments address a number of ways in which the proposals set forth in the Further Notice can be modified or expanded to promote efficient spectrum usage by applicants and licensees. McCaw strongly endorses two of these recommendations -- requiring need showings for applications proposing to operate on wideband channels and employing the Part 21 prior coordination notice process for all the affected frequency bands.

#### A. Applicants for Wideband Usage Should Demonstrate Need and Sufficient Loading

Harris, et al. urge the Commission to require applicants for channels of 15 MHz or greater to submit as part of their application an extensive justification for that amount of

spectrum.<sup>3</sup> This showing would include a demonstration that the communications requirements of the applicant cannot be accommodated with a narrower channel.<sup>4</sup> In addition, these wideband applicants should be required to demonstrate a need for initial channel loading of at least 50 percent of capacity.<sup>5</sup>

McCaw supports adoption of this requirement. Without requiring such a showing, an applicant could tie up valuable spectrum without intending or being able to make full use of the bandwidth. This would foreclose other potential users, both of narrowband and wideband channels. Portions of the channel would remain unused, denying the public the benefit of efficient use of the spectrum.

B. The Part 21 Prior Coordination Process Should Be Used for All the Subject Bands

With respect to frequency coordination of proposed uses in the subject bands, the Further Notice states: "[I]n the 4, 6, 10, and 11 GHz common carrier bands, we propose that Part 21 coordination procedures be used, whereas in the 6 GHz private band, we propose that Part 94 procedures be used."<sup>6</sup> A number of commenting parties recommend that the Commission apply the same

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<sup>3</sup> Harris, et al. at 11-12. See TIA 9-10 (defining wideband as 10 MHz and more).

<sup>4</sup> Harris, et al. at 11. See TIA at 10.

<sup>5</sup> Harris, et al. at 12. See TIA at 10.

<sup>6</sup> FNPRM at ¶ 30.

frequency coordination requirements to all bands.<sup>7</sup> Some parties point out that, if the Commission adopts its proposal, applicants may well gravitate toward those bands perceived to involve a "quicker" or "easier" coordination process, whether or not such bands are best suited to the proposed use.<sup>8</sup> Parties supporting the use of a single coordination process for all of the bands generally urge the Commission to adopt the Part 21 prior coordination process set forth in Section 21.100(d) of the Commission's Rules.<sup>9</sup>

McCaw concurs that the public interest will best be served by adoption of rules that prescribe the Part 21 coordination process for all the bands contemplated by the Further Notice. A uniform procedure is necessary for the reasons pointed out above. In addition, the prior coordination procedure will facilitate the efficient use of the spectrum.<sup>10</sup> Under the Part 21 process, entities seeking to make use of spectrum are aware of other proposals at a much earlier stage of the process than is the case under Part 94 licensing. This knowledge enhances the ability of parties to plan their own facilities and pursue the appropriate

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<sup>7</sup> E.g., AT&T at 3 n.3; GTE Service Corporation at 7-8; Harris, et al. at 13; National Spectrum Managers Association, Inc. ("NSMA") at 6; United States Telephone Association ("USTA") at 6; Utilities Telecommunications Council ("UTC") at 9-10.

<sup>8</sup> E.g., NSMA at 6; USTA at 6-7; UTC at 10.

<sup>9</sup> E.g., Comsearch at 12-13; EMI Communications Corporation at 6; Harris, et al. at 14; TIA at 13; USTA at 7; UTC at 10. See 47 C.F.R. § 21.100(d) (1991).

<sup>10</sup> See Comsearch at 14.

amounts of spectrum. In addition, the prior coordination notice process provides a mechanism whereby parties can negotiate with one another to permit microwave installations that otherwise might be precluded when considered purely from an interference perspective. This procedure thus will best serve the public's interest in ensuring the most effective use of the radio waves.

IV. LICENSEES MUST BE GRANTED A REASONABLE OPPORTUNITY TO BUILD OUT SYSTEMS

A. Licensees Should Be Able To Protect Coordinated Spectrum for 18 to 24 Months

The Further Notice seeks comment on "whether frequency coordinators should establish time limits for the reservation of growth channels, such as a six month reservation period."<sup>11</sup> This tentatively proposed timeframe is generally consistent with the current prior coordination process.<sup>12</sup> Nonetheless, experience has demonstrated that the Commission should permit applicants and licensees to protect coordinated spectrum for a period of 18 to 24 months.

Cellular carriers often need to protect a coordinated path for a period of time longer than six months. When selecting a potential new cell site, a cellular carrier frequently will also

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<sup>11</sup> FNPRM at ¶ 30.

<sup>12</sup> An applicant may initially protect a frequency coordinated path for six months. This six-month protected period can be successively renewed by the frequency coordinator sending out a notice to affected parties to retain the path information in their databases.

ensure that it can clear microwave frequencies to be used to interconnect the facility to the remainder of the cellular system. If that site is the subject of a Form 401 application, the time necessary for the preparation, processing, grant, and construction of the facility will often substantially exceed six months. A time frame of 18 months is not atypical. If the cellular operator may not protect the coordinated path during this time period, it may construct the cell facility only to discover that necessary microwave frequencies are no longer available. While the paths to be protected in such cases technically are not "growth" channels, the Commission must ensure that this type of extended frequency protection is permitted under the rules.

B. Existing Systems Should Be Grandfathered and Permitted To Expand Consistent with Current Plans

The Further Notice states that "expansion of existing microwave systems should be allowed under current channelization plans without waiver."<sup>13</sup> A number of parties have pointed out in their opening comments that this policy is not reflected in the proposed rules included with the Further Notice.<sup>14</sup> As an existing licensee in the affected microwave bands, McCaw believes strongly that the policy articulated in the Further Notice should

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<sup>13</sup> FNPRM at ¶ 32.

<sup>14</sup> E.g., Bell Atlantic Companies at 2-3; NSMA at 4; Western Tele-Communications, Inc. ("WTCI") at 3.



be clearly set forth in the rules ultimately adopted in this proceeding.<sup>15</sup>

Existing licensees have invested in microwave systems based on the reasonable assumption that the systems could be gradually built out and expanded consistent with current channelization plans. If a new channelization plan is adopted, however, these licensees will be unable to expand those systems as originally envisioned. Indeed, in cases where the existing facilities cannot be interconnected with new paths operated under the revised channelization plans, licensees will be required to undertake the expense of replacing existing facilities prematurely. Such a result is not consistent with the public interest, and the Commission should ensure that the policy articulated in its Further Notice is fully effectuated in the rules governing the 4, 6, and 11 GHz bands.

#### V. CONCLUSION

The Further Notice represents an important step in the Commission's plans for the redevelopment of the 2 GHz bands. For the most part, McCaw believes that the Further Notice sets forth sound proposals that will promote the efficient use of the bands

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<sup>15</sup> See, e.g., Alcatel at 7; Northern Telecom at 8; WTCI at 3-4.

that are the subject of this proceeding. Adoption of the recommendations made above will aid in the Commission's achievement of these goals.

Respectfully submitted,

MCCAW CELLULAR COMMUNICATIONS, INC.

By: Mark R. Hamilton  
Mark R. Hamilton  
Scott K. Morris  
Cathleen A. Massey  
McCaw Cellular  
Communications, Inc.  
5400 Carillon Point  
Kirkland, Washington 98033  
(206) 827-4500

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